Great Corby School and Nursery

Science Progression

The EYFS framework is structured very differently to the national curriculum as it is organised across **seven areas of learning** rather than subject areas.

- Communication and Language
- Personal, social and emotional development
- Physical development
- Literacy
- Mathematics
- Understanding the World
- Expressive art and design.

Alongside the seven areas of learning are t**he characteristics of effective teaching and learning.**

In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately.

Three characteristics of effective teaching and learning are:

- *playing and exploring – children investigate and experience things, and 'have a go'*

- *active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy achievements*

- *creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things*

Taken from Development Matters revised 2021

The aim of this document is to help subject leaders to understand how the skills taught across EYFS feed into national curriculum subjects.

Children are given opportunities to develop their own play and independent exploration through our vision of curiosity and wonder. Communication and Language and Personal, Social and Emotional Development are intertwined in everything we do.

This document demonstrates which statements from the revised 2021 Development Matters are prerequisite skills for **science** within the national curriculum. The table below outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four-Year-Olds and Reception to match the programme of study for **science.** The most relevant statements for **science** are taken from the following areas of learning:

- Communication and Language

- Personal, Social and Emotional Development

- Understanding the World

Science					
Development Matters			**Vocabulary**	**Examples of how this is achieved in EYFS**	**Science in Key Stage 1**
Birth to Three	Communication and Language	• Understand simple questions about 'who', 'what' and 'where; (but generally not 'why')	**Scientific Vocabulary –** Scientist, sort, observation, identify, compare, group, investigate, test, evaluate	• Discussions at snack time of the importance of healthy food choices. • During lunch time discussions. • Naming body parts through songs – heads, shoulders, knees and toes. • **RSE link** – Correct naming of body parts. • Talking about pets at home. • Exploring minibeasts and recording our observations. • Going on walks to observe the local environment and to compare and learn about the seasons. •Forest school.	See the links at the bottom of this table.
	Personal, Social and Emotional Development	•Notice and ask questions about difference, such as skin colour, types of hair, gender, special needs, religion and so on.			
	Understanding the World	• Explore natural materials, indoors and outside. •Explore and respond to different natural phenomena in their setting and on trips.			
Three and Four-Year-Olds	Communication and Language	• Understand 'why' questions, like: "Why do you think the caterpillar get so fat?"			
	Personal, Social and Emotional Development	• Make healthy choices about food, drink, activity and toothbrushing.			

	Understanding the World	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary. • Begin to make sense of their own life-story and family's history. • Explore how things work. • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things. • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice		• Taking photos to compare seasons and discuss. • Planting seeds and plants • Looking after the EYFS garden. • Creating bug hotels • Growing plants from bulbs and seeds. • Making boats to explore best materials. • Water tray activities to explore water, ice, and materials that float and sink. • Testing the best material for a raincoat for a bear. •Incubating chicks • Observing caterpillars turning into butterflies and tadpoles turning into frogs.	
Children in Reception	Communication and Language	• Learn new vocabulary. • Ask questions to find out more and to check what has been said to them. • Articulate their ideas and thoughts in well-formed sentences. • Describe events in some detail.			

			• Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. • Use new vocabulary in different contexts.			
	Personal, Social and Emotional Development		• Know and talk about the different factors that support their overall health and wellbeing: -regular physical activity - healthy eating -toothbrushing -sensible amounts of 'screen time' - having a good sleep routine • being a safe pedestrian			
	Understanding the World		• Explore the natural world around them. • Describe what they see, hear and feel while they are outside. • Recognise some environments that are different to the one in which they live. • Understand the effect of changing seasons on the natural world around them.			
ELG	Communication and Language	Listening, Attention and Understanding	• Make comments about what they have heard and ask questions to clarify their understanding			

	Personal, Social and Emotional Development	Managing Self	• Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.	• Exercise • Healthy • Wash • Toothbrush • Tooth / Teeth • Body • Head • Bones • Skeleton • Family		
	Understanding the World	The Natural World	•Explore the natural world around them, making observations and drawing pictures of animals and plants.	***Animals, including humans. (link to KS1)*** • Animal • Human • Mammal • Bird • Fish • Amphibian • Insect • Lifecycle • Nocturnal		Animals, including humans.
			• Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	***Plants (link to KS1)*** • Lifecycle • Plant • seed • grow • roots • Flower ***Seasonal changes (link to KS1)*** • Seasons • Autumn • Winter • Spring • Summer		Plants Seasonal changes / Living things and their habitats Everyday materials / Use of everyday materials

				• Change • Weather ***Use of everyday materials*** ***(link to KS1)*** • Material • Wood • Plastic • Glass • Float • Sink • Liquid • Solid			

Key Stage 1	**Lower Key Stage 2**	**Upper Key Stage 2**
The principal focus of science teaching in key stage 1: • To enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. • They should be encouraged to be curious and ask questions about what they notice. • They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer	The principal focus of science teaching in lower key stage 2: • To enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions.	The principal focus of science teaching in upper key stage 2: • To enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.

their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. • They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. • Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.	• They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. • They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.	• They should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. • They should also begin to recognise that scientific ideas change and develop over time. • They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. • They should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.
Working Scientifically	**Working Scientifically**	**Working Scientifically**
During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions	During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • asking relevant questions and using different types of scientific enquiries to answer them • setting up simple practical enquiries, comparative and fair tests • making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers • gathering, recording, classifying and presenting data in a variety of ways to help in answering questions	During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: • planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • using test results to make predictions to set up further comparative and fair tests

	• recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables • reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions • using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • identifying differences, similarities or changes related to simple scientific ideas and processes • using straightforward scientific evidence to answer questions or to support their findings.	• reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations • identifying scientific evidence that has been used to support or refute ideas or arguments

Science Progression

Overview – Cycle A						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
KS1 (Y1+2)	**Y1 Seasonal changes and weather** • Know what the four seasons are • Identify the weather in all four seasons • Explain why day becomes night **Vocabulary** Dawn Dusk Mild Rotate Soaked Weather Month Season Spring Summer Autumn Winter **Cultural capital**	**Y1 Introduce animals, including humans** • Know what an animal is • Know the different types of animals • Explain what is similar and what is different • Know what food tells us about an animal • Know what makes me an animal and what senses I have **Vocabulary** Blood Senses Young Feathers Fur Scales Mammal	**Y1 Introduce everyday materials** • Know what materials are • Identify what things are made of in school • Describe different materials • Explain which materials are waterproof and which are not • Explain which materials are transparent and which are opaque • Explain which material is most suitable for a given job **Vocabulary** Absorb Rough	**Y1 Plants including trees** • Identify the parts of a plant • Identify wild plants and where to find them • Identify garden plants and where to find them • Know what makes a tree a tree • Identify the types of tree that live around my school • Know the difference between trees **Vocabulary** Bud Trunk Branch Bark Seed	**Y1 Revisit animals, including humans** • Know the features of animals (mammals, birds, amphibians, reptiles and fish) • Explain what food tells us about an animal • Know what makes me an animal and the senses I have **Vocabulary** Blood Senses Young Feathers Fur Scales Mammal Amphibian Reptile Herbivore	**Y1 Revisit Plants** • Explain what I remember about plants • Explain what I remember about the parts of plants • Explain what I remember about the difference between deciduous and evergreen trees **Vocabulary** Bud Trunk Branch Bark Seed Wild Nutrients Stem Deciduous Evergreen

	Seasonal walks around the village **Y2 Introduce living things and their habitats** • Identify what is alive and what is not • Identify what all living things have in common • Know where plants and animals live • Identify which plants and animals live in our local environment (Great Corby woods) • To learn about food chains and how they are connected • To understand why plants and animals need each other **Vocabulary** Thrive Depend Producer Consume Prey Predator	Amphibian Reptile Herbivore Carnivore Omnivore **Cultural capital** Visit to farm Visit from Zoolab **Y2 Introduce animals, including humans** • Explain what an animal is • Explain how animals change as they mature • Explain how we change as we mature • To know what animals need to stay alive • Explain why we exercise • Explain why we eat different types of food **Vocabulary** Healthy Survive Exercise	Smooth Waterproof Metal Plastic Materials Properties Flexible Transparent Opaque Physical **Cultural capital** Visit to Holme Head House **Y2 Uses of everyday materials** • Know what materials are used for (categorise and compare materials) • Observe what happens when materials are squashed, twisted, stretched or bent • Explain which material is most suitable for a given job • Identify the most absorbent material	Wild Nutrients Stem Deciduous Evergreen **Cultural capital** Gardening Forest School Great Corby Growers **Y2 Introduce plants** • Describe how seeds germinate and observe what happens • Observe what happens when bulbs sprout • Explain what plants need to thrive and be healthy • Observe what can happen if plants don't get the things they need • Observe if plants are healthy or unhealthy around the school • Summarise how seeds and bulbs grow and what	Carnivore Omnivore **Y2 Revisit Plants and animals, including humans** • Remember how seeds germinate and observe what happens • Summarise what I know about animals including humans • Explain what plants need to thrive and be healthy • Elaborate on what I know about animals including humans **Vocabulary** Wither Dormant Mature Bulb Anchor Sustain Germination Perennial Carbon dioxide Glucose Clone	**Y2 Revisit living things and their habitats** • Remember what is alive and what is not • Remember what all living things have in common • Remember where plants and animals live • Remember about food chains and how they are connected **Vocabulary** Thrive Depend Producer Consume Prey Predator Oxygen Nutrition Respiration Sensitivity Reproduction Excretion **Y2 Revisit everyday materials**

	Oxygen Nutrition Respiration Sensitivity Reproduction Excretion	Heart Lungs Muscles Hygiene Larva Pupa Vertebrates Invertebrates Metamorphosis **Cultural capital** Visit to farm Visit from Zoolab	• Know who invented waterproofing **Vocabulary** Artificial Brittle Extracted Fabric Manufactured Natural Ceramic Durable Inflexible Reflective Rigid Translucent **Cultural capital** Visit to Holme Head House	plants need to be healthy **Vocabulary** Wither Dormant Mature Bulb Anchor Sustain Germination Perennial Carbon dioxide Glucose Clone **Cultural capital** Gardening Forest School Great Corby Growers	Healthy Survive Exercise Heart Lungs Muscles Hygiene Larva Pupa Vertebrates Invertebrates Metamorphosis	• Remember what everyday materials are made from and how they are used • Discuss and explain why everyday materials should/should not be used for certain jobs • Investigate hard and soft materials **Vocabulary** Artificial Brittle Extracted Fabric Manufactured Natural Ceramic Durable Inflexible Reflective Rigid Translucent
LKS2 (Y3+4)	**Y4 Introduce states of matter** • Explain what matter and state mean • Identify what solids, liquids and gases are	**Y3 Introduce animals, including humans (nutrition and skeleton)** • Know how the food we eat effects our bodies	**Y3 Introduce plants** • Identify the parts of a flowering plant and explain what they do • Investigate if all plants need the	**Y3 Introduce light** • Know that we need light to see things • Investigate how shadows are formed • Investigate shadow size	**Y4 Electricity** • Know what appliances use electricity and what power makes them work	**Revisit topics (e.g. plants) through working scientifically**

	• Investigate how materials change state – melting • Investigate how materials change state – evaporating • Investigate how materials change state – condensing • Summarise how materials change their state of matter **Vocabulary** Permanent Particle Solid Liquid Gas Vapour Evaporate Condense Melt Matter State Volume	• Know where my skeleton is and what it does • Identify where my muscles are and what they do **Vocabulary** Minerals Skeleton Skull Voluntary Involuntary Nerves Biceps Triceps Vertebrae Vitamins Proteins Carbohydrates **Cultural capital** Visit from NHS worker	same things to thrive and grow • Explain how leaves make food for the plant • Explain how water moves through a plant • Explain the function of flowers • Describe pollination **Vocabulary** Adapt Essential Glucose Transport Variety Vital Transpiration Stoma Pollination Stamen Pistol Photosynthesis **Cultural capital** Forest school	**Vocabulary** Absence Cast Impenetrable Reflect Shadow Source Constant Dependent Independent Illuminate Translucent Variable **Y4 Sound** • Know what sound is • Investigate how sound travels • Know the pitch and loudness of sound **Vocabulary** Produce Properties Force Frequent Regular Affect Vibrate Pitch Volume Medium Vacuum	• Identify the components in a simple series circuit • Investigate what happens when a circuit is open or closed • Describe the effects of changing circuit components and batteries **Vocabulary** Associate Identify Portable Effect Appliance Series Component Electrical insulator Electrical conductor Circuit Hypothesis Variable **Cultural capital** Visitor from an electrician	

				Sound wave **Cultural capital** Listen to a band		
UKS2 (Y5+6)	**Y5 Introduce properties and changes of materials** • Know what properties materials have and how we use them • Explain what a solution and a mixture are • Investigate separating materials from a mixture • Investigate separating materials from a solution • Know which changes are reversible • Know which changes are irreversible **Vocabulary** Property Particle Separate Combine Recover Comparative	**Y6 Animals, including humans (heart, diet and lifestyle)** • Know what blood is made of and why we need it • Explain why our bodies need nutrients and how they are transported • Know what our circulatory system is • Explain what our heart is like inside and how it works • Know who influenced what we know about our circulatory system • Investigate what we can do to keep healthy • Present and explain what we know about the circulatory system, nutrients and keeping healthy	**Y5 Introduce forces** • Explain when friction is helpful and when it is not • Investigate the effects of air resistance • Investigate the effect of water resistance • Know who Galileo Galilei is • Investigate how levers help us • Investigate how pulleys and gears help us **Vocabulary** Opposite Reaction Advantage Displace Weight Mass Pulley Gear Pivot Fulcrum Lever	**Y5 Introduce living things and their habitats (life cycles)** • Explain the difference between a mammal and an amphibian • Explain the difference between an insect and a bird • Explain what is similar and what is different between the life cycles of a mammal, an insect, an amphibian and a bird • Know who Maria Merion was • Know how living things reproduce • Explain the life process of reproduction of plants and animals **Vocabulary** Deduce Process Re-form	**Y6 Light** • Investigate how light travels • Explore the colours light is made up of • Explain how light helps us to see objects • Investigate which surfaces make the best reflectors • Explain why we see objects as a particular colour • Investigate what happens to the appearance of objects when placed in water **Vocabulary** Impurity Emit Absorb Constituent Filter Artificial Refraction Incidence Spectrum	**Y5 Animals, including humans (describe changes as humans change to old age)** • Explain the human timeline • Explain how we change into adults • Compare human and animal gestation and lifespan **Vocabulary** Development Diverse Unique Generation Mature Equipped Adolescence Puberty Gestation Embryo Foetus Womb **Cultural capital**

	Atom Molecule Chemical changes Physical changes Reversible Reaction	**Vocabulary** Cell Chamber System Circulation Vessel Clot Plasma Platelet Artery Capillary Vein Ventricle **Cultural capital** Dissection of the heart (visitor)	Up thrust	Transform Adolescence Contrast Embryo Sexual Metamorphosis Incubate Biochemical Fertilisation **Cultural capital** Ducks or chicks to incubate in school	Prism Lux Pigment	Arrange to meet people of different generation

Overview – Cycle B						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
KS1 (Y1+2)	**Y1 Seasonal changes and weather** • Know what the four seasons are • Identify the weather in all four seasons • Explain why day becomes night **Vocabulary** Dawn Dusk Mild Rotate Soaked Weather Month Season Spring Summer Autumn Winter	**Y1 Introduce animals, including humans** • Know what an animal is • Know the different types of animals • Explain what is similar and what is different • Know what food tells us about an animal • Know what makes me an animal and what senses I have **Vocabulary** Blood Senses Young Feathers Fur Scales Mammal	**Y1 Introduce everyday materials** • Know what materials are • Identify what things are made of in school • Describe different materials • Explain which materials are waterproof and which are not • Explain which materials are transparent and which are opaque • Explain which material is most suitable for a given job **Vocabulary** Absorb Rough	**Y1 Plants including trees** • Identify the parts of a plant • Identify wild plants and where to find them • Identify garden plants and where to find them • Know what makes a tree a tree • Identify the types of tree that live around my school • Know the difference between trees **Vocabulary** Bud Trunk Branch Bark Seed	**Y1 Revisit animals, including humans** • Know the features of animals (mammals, birds, amphibians, reptiles and fish) • Explain what food tells us about an animal • Know what makes me an animal and the senses I have **Vocabulary** Blood Senses Young Feathers Fur Scales Mammal Amphibian Reptile Herbivore	**Y1 Revisit Plants** • Explain what I remember about plants • Explain what I remember about the parts of plants • Explain what I remember about the difference between deciduous and evergreen trees **Vocabulary** Bud Trunk Branch Bark Seed Wild Nutrients Stem Deciduous Evergreen

	Y2 Introduce living things and their habitats • Identify what is alive and what is not • Identify what all living things have in common • Know where plants and animals live • Identify which plants and animals live in our local environment (Great Corby woods) • To learn about food chains and how they are connected • To understand why plants and animals need each other **Vocabulary** Thrive Depend Producer Consume Prey Predator Oxygen Nutrition Respiration	Amphibian Reptile Herbivore Carnivore Omnivore **Y2 Introduce animals, including humans** • Explain what an animal is • Explain how animals change as they mature • Explain how we change as we mature • To know what animals need to stay alive • Explain why we exercise • Explain why we eat different types of food **Vocabulary** Healthy Survive Exercise Heart Lungs Muscles Hygiene	Smooth Waterproof Metal Plastic Materials Properties Flexible Transparent Opaque Physical **Y2 Uses of everyday materials** • Know what materials are used for (categorise and compare materials) • Observe what happens when materials are squashed, twisted, stretched or bent • Explain which material is most suitable for a given job • Identify the most absorbent material • Know who invented waterproofing **Vocabulary** Artificial	Wild Nutrients Stem Deciduous Evergreen **Y2 Introduce plants** • Describe how seeds germinate and observe what happens • Observe what happens when bulbs sprout • Explain what plants need to thrive and be healthy • Observe what can happen if plants don't get the things they need • Observe if plants are healthy or unhealthy around the school Summarise how seeds and bulbs grow and what plants need to be healthy **Vocabulary** Wither	Carnivore Omnivore **Y2 Revisit Plants and animals, including humans** • Remember how seeds germinate and observe what happens • Summarise what I know about animals including humans • Explain what plants need to thrive and be healthy Elaborate what I know about animals including humans **Vocabulary** Wither Dormant Mature Bulb Anchor Sustain Germination Perennial Carbon dioxide Glucose Clone Healthy	**Y2 Revisit living things and their habitats** • Remember what is alive and what is not • Remember what all living things have in common • Remember where plants and animals live • Remember about food chains and how they are connected **Vocabulary** Thrive Depend Producer Consume Prey Predator Oxygen Nutrition Respiration Sensitivity Reproduction Excretion **Y2 Revisit everyday materials**

	Sensitivity Reproduction Excretion	Larva Pupa Vertebrates Invertebrates Metamorphosis	Brittle Extracted Fabric Manufactured Natural Ceramic Durable Inflexible Reflective Rigid Translucent	Dormant Mature Bulb Anchor Sustain Germination Perennial Carbon dioxide Glucose Clone	Survive Exercise Heart Lungs Muscles Hygiene Larva Pupa Vertebrates Invertebrates Metamorphosis	• Remember what everyday materials are made from and how they are used • Discuss and explain why everyday materials should/should not be used for certain jobs • Investigate hard and soft materials **Vocabulary** Artificial Brittle Extracted Fabric Manufactured Natural Ceramic Durable Inflexible Reflective Rigid Translucent
LKS2 (Y3+4)	**Y3 Rocks** • Explain how rocks are formed • Know the different types of rocks • Identify if rocks can change	**Y3 Introduce forces and magnets** • Explain what contact forces are • Investigate how surfaces affect the motion of an object	**Y4 Introduce living things and their habitats** • Identify the characteristics of living things • Identify animals that are vertebrates	**Y4 Introduce animals, including humans (teeth, eating, food chains and the digestive system)**	**Y4 Revisit living things and their habitats** • Classify animals that are vertebrates and invertebrates	**Y3 Revisit rocks** • Remember how rocks are formed and the different types of rocks • Remember how rocks can change

	• Investigate if a rock is limestone or chalk • Investigate if soil just dirt and know what makes soil • Explain how fossils are formed • Elaborate and remember rocks, soils and fossils **Vocabulary** Cemented Compacted Decay Prehistoric Soil Transform Fossil Igneous Magma Metamorphic Minerals Sedimentary **Cultural capital** Visit from geology teacher	• Explain how friction affects moving objects • Explain what a non-contact force is and how it is different to a contact force • Investigate how magnets attract and repel • Explain which materials are magnetic and give a summary of forces and magnetism **Vocabulary** Consequence Contact Force Attract North South Magnet Resistance Friction Repel Pole Magnetic field	• Identify animals that are invertebrates • Classify plants into groups • Know what classification is and be able to use a key • Explain what happens if the environment in a habitat changes **Vocabulary** Classification Environment Interdependence Interact Beneficial Hierarchy Vertebrate Invertebrate Biotic Ecosystem Species Niche **Cultural capital** Forest school	• Describe what teeth humans have and what they do • Explain how our mouth and teeth help digestion and explain the process • Investigate if teeth can tell us what animals eat **Vocabulary** Expel Compact Digestion Acid Stomach Intestines Incisor Canine Molar Enzyme Saliva Peristalsis	• Know what groups plants are classified in • Explain what a classification key is and how you use it **Vocabulary** Classification Environment Interdependence Interact Beneficial Hierarchy Vertebrate Invertebrate Biotic Ecosystem Species Niche	• Remember how fossils are formed **Vocabulary** Cemented Compacted Decay Prehistoric Soil Transform Fossil Igneous Magma Metamorphic Minerals Sedimentary
UKS2 (Y5+6)	**Y5 Introduce earth and space**	**Y6 Introduce evolution and inheritance**	**Y6 Introduce living things and their habitats (classifying)**	**Y5 Revisit Living things and their habitats**	**Y6 Introduce electricity**	**Y6 Introduce Animals, including humans (water transportation)**

	• Identify the planets in our solar system • Explain how our view of the moon changes in a lunar month • Investigate how the rotation of the Earth results in night and day • Explain why the Earth's tilt (axis) is responsible for the seasons • Summarise what you know about Earth and space **Vocabulary** Luminous Phenomenon Attraction Approximately Relative Apparent Orbit Axis Crescent Gravitational Waxing Waning **Cultural capital**	• Explain how living things have changed over time • Explain how life has evolved over time • Know what DNA is and explain what it does • Investigate if all offspring are identical to their parents • Know that Darwin and Wallace both shared evidence to argue the case for evolution • Explain how animals have adapted and evolved to suit their environment **Vocabulary** Characteristic Adaptation Acquire Theory Modify Generation Evolve Survival Species	• Explain who Carl Linnaeus was and what he did • Know how to classify vertebrates • Know how to classify invertebrates • Know how to classify invertebrates that we don't know (Sponges, Jellyfish, Flatworms, Starfish, Sea urchins, Crustacea and Myriapoda) • Classify animals and plants in my local area **Vocabulary** Characteristic Interdependence Specific Categorise Primitive Hierarchy Fungus Arthropod Taxonomy Kingdom Phylum Genus	• Remember the differences between an insect and an amphibian • Compare similarities and differences between the life cycles of an insect and an amphibian • Remember the process of reproduction in plants **Vocabulary** Deduce Process Re-form Transform Adolescence Contrast Embryo Sexual Metamorphosis Incubate Biochemical Fertilisation **Y5 Second revisit Living things and their habitats** • Apply your knowledge to select	• Explain what electricity is and how it works • Investigate the components in a series circuit and how the cells and voltage affect them • Investigate the effects and consequences of changing circuit components and batteries **Vocabulary** Component Consequence Systematic Represent Source Generate Proton Neutron Electron Terminal Series Voltage **Cultural capital** WHS link	• Remember how the circulatory system and the digestive system are related • Describe where the kidneys are found and their function • Explain how our kidneys keep us healthy **Vocabulary** Filter Expel Substance Function Regulate Transform Kidney Bladder Urine Excretion Toxin Nutrient

	Planetarium	Clone Inherit Fossil **Cultural capital** Visit to Great North Museum		and organise information • Design and create animal information • Compare differences between animals **Vocabulary** Deduce Process Re-form Transform Adolescence Contrast Embryo Sexual Metamorphosis Incubate Biochemical Fertilisation		

Biology unit
Chemistry unit
Physics unit

Statements written in green are desirable statements and therefore may not be covered.